BLACKVUE™

BLACKVUE™

DR650GW-1CH
Manual

PITTASOFT
www.blackvue.com

BLACKVUE Wi-Fi

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Introduction to the Manual

Thank you for purchasing a BlackVue by Pittasoft Co., Ltd.
This instruction manual contains information on how to operate your BlackVue. Before using the product, make sure to read through this manual so as to use the product in the correct way.
To enhance the performance of the product, the contents of this instruction manual may be changed without prior notice.

Warranty & Support

- **This product records and saves videos of vehicle accidents, but it is not guaranteed to record all accidents. Accidents with light impact that is not enough to activate the impact detection sensor may not be recorded.**
- In accordance with Personal Information Security Law & related legislation, Pittasoft Co., Ltd. will not be held responsible for any problem due to illegal use of this product.
- The recorded video produced by this product constitutes the secondary data that may help to determine the circumstances of an accident. Pittasoft Co., Ltd. will not be held responsible for any loss or damage caused by any accident.

Copyright & Trademark

- This instruction manual is protected by Copyright Law, and all rights to it are protected by law.
- It is prohibited to reproduce, copy, modify, or translate this instruction manual without permission.
- BLACKVUE BlackVue is the registered trademark of Pittasoft Co., Ltd. Pittasoft Co., Ltd. reserves the rights regarding all works related to the BlackVue brand such as product design, trademarks, and product-promotional videos. It is prohibited to reproduce, copy, modify, or use related works without permission. Any violation may be penalized in accordance with the relevant regulations.

Caution

- A formatted microSD card is provided when you purchase the product. Insert the microSD card into BlackVue, and turn on the power. The microSD card will be initialized, and programs such as BlackVue Viewer will be installed.

Cautions for Safety

The purpose of these cautions is to maintain user safety and avoid damage to property.
Please make sure to read through this manual so as to use the product in the correct way.

DANGER Death or property damage can be caused for users if the following directions are not followed:

- **Do not disassemble, repair, or modify the product yourself.**

  It can cause fire, electric shock, or malfunction. For internal inspection and repair, call the sales headquater.

- **If any foreign matter gets inside the product, detach the power cord straightaway.**

  Call the sales headquater for repair.

- **Do not operate the product while driving.**

  It can cause an accident. Stop or park your car in a safe place to operate it.

- **Do not install the product where it can interfere with the driver's vision.**

  It can cause an accident.

- **Do not use a damaged or modified power cord. Use the cords provided by the manufacturer.**

  Otherwise it can cause explosion, fire, or malfunction.

- **Do not operate the product with wet hands.**

  It can cause electric shock.

- **Do not install it in an environment with high humidity, or combustible gases or liquids.**

  It can cause explosion & fire.

WARNING Death or serious injury can be caused for users if the following directions are not followed:

- **Do not leave the product where infants, children, or pets can reach it.**

  They might swallow small components, or their saliva could get into it and cause an explosion due to a short circuit.

- **While cleaning the inside of the car, do not spray water or wax directly onto the product.**

  It can cause fire, electric shock, or malfunction.

- **If smoke or an unsual smell is emitted from the power cord, detach it immediately.**

  Call the sales headquater or the dealer.

- **Keep the terminal of the power cord clean.**

  A dirty terminal can cause excessive heat and fire.

- **Use the correct input voltage.**

  Otherwise it can cause explosion, fire, or malfunction.

- **Connect the power cord firmly so that it cannot easily be disconnected.**

  Othersise it can cause fire.

- **Do not cover the product with any material.**

  It can cause external deformation of the product or fire. Use the product and peripherals where ventilation is ensured.

CAUTION Injury or property damage can be caused for users if the following directions are not followed:

- **Do not spray cleaning products directly onto the outside of the product.**
  It can cause discoloration, cracks, or malfunction.
- **Do not press the RESET button with a sharp object such as an awl.**
  It can cause damage or malfunction.
- **If the product is used outside the optimal temperature range (0°C ~ 60°C), performance can decline or malfunction can be caused.**
- **Make sure that the product is installed properly.**
  The product can fall as a result of vibration, and may cause physical injury.
- **While entering or exiting a tunnel, during daytime in the face of bright sunlight, or at night with no light, the quality of recorded video can deteriorate.**
- **If the product is damaged or the power supply is cut due to an accident, video may not be recorded.**
- **Excessively tinted windshield glass can distort the recorded video or cause it to be indistinct.**
- **Prolonged use of the product can increase the interior temperature and cause burns.**
- **microSD cards are a consumable so replace them after prolonged use.**
  They may not record video correctly after a long time in use, so check their recording capability periodically and replace it as necessary.
- **Clean the lens regularly.**
  Foreign material attached to the lens can affect the recording quality.
- **Do not remove the microSD card while it is saving or reading data.**
  The data can be damaged or malfunction caused.
- **Do not use the BlackVue, while cover is open.**
- **It is recommended to install the product at the BlackVue installation center. You can check the the BlackVue installation center from the BlackVue homepage (www.blackvue.com).**
- **It is recommended to remove the power cord if the product (BlackVue/ Battery Discharge Prevention Device) is not used for a long time.**

Checks for GPS

Even if the GPS isn't working, video is recorded, but position coordinates and driving speed are not recorded. When used for the first time, or when the product is not used for 3 consecutive days, it will take some time for the GPS to find the current position.
If there is an error with the GPS time when checking recorded video with a viewer program or the BlackVue application, turn the GPS off and on after a signal is received.

Make sure to observe the following for an uninterrupted GPS signal.

- Do not place any objects on the GPS.
- Do not have the windshield glass tinted with a metallic component.
- Be careful with the installation of devices that may interfere with GPS reception (e.g. some wireless starters & alarms and MP3/CD players).
- Do not use it simultaneously with other devices that use GPS signal.
- Cloudy weather can interfere with GPS reception.
- GPS reception can be poor in tunnels, underpasses, or streets with may Skyscrapers or high rise buildings, and generating stations, military bases, or broadcasting transmitters etc.

Checks for the microSD Card

Refer to the followings for trouble-free use of your microSD card.

- It is recommended to format it once a week.
- If the recorded video suffers from break-up, format the microSD card.
- For stable function, format it with programs recommended by the SD card association. For more details, refer to the BlackVue website (www.blackvue.com).
- Before formatting it, copy important files to other storage media to store them.
- Press the **Wi-Fi** button on the side for 10 seconds to format a microSD card without using a PC.
- Insert the formatted microSD card into the product so that the microSD card is automatically initialized and the firmware is installed on it.
- Insert or remove the microSD card only when the product is turned off.
- microSD cards are a consumables and they are guaranteed for 6 months.
- Other manufacturer's microSD cards can cause compatibility problems so it is recommended to use a Pittasoft microSD card.
- **The use of the Battery Discharge Prevention Device(ex. Power Magic Pro) can shorten the microSD card lifespan.**
- **If a 64GB microSD card needs to be used, format it using BlackVue Viewer and insert it into the product.** (23 Page)

Product Features

Ultra-high quality and smooth video

Full HD(1920x1080) 30 frame ultra-high quality video

High-class design with functionality

Simple but classy all black design with the functionality of a 360-degree revolution to set any angle.

Support up to 64GB microSD card

Maximize the capacity of microSD card which allows to save massive recorded vides and information

129° Wide-angle lens supporting high quality image as default

Support Full HD resolution with 129° lens which allows to show the most clear and detailed playback of an accident and prevent video distortion

SONY Exmor CMOS sensor

Clearer vision with high image quality SONY image sensor and high-resolution megapixel lens during both day and night-time driving

G-sensor & highly-sensitive GPS

Collect the vehicle speed and recording location etc. with GPS data and the detailed driving route and recording can be checked with BlackVue viewer

VOD & real-time live view function

With built-in Wi-Fi and the BlackVue App, video can be played regardless of place and time

BlackVue App

Watch recorded videos and live view through BlackVue App (support Android, iOS)

Diverse recording options (Normal/Event/Parking)

Event recording and automatic conversion & deactivation of parking mode

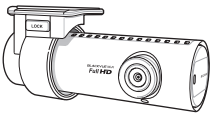
High-compression recording mode to extend microSD card life

Efficient memory usage with high-compression storage method

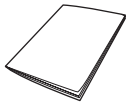
Support BlackVue Viewer program for Windows PC and Mac

BlackVue Viewer program which allows you to configure various settings including resolution, voice recording and Wi-Fi and play back the recorded video

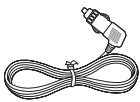
Package Components



BlackVue

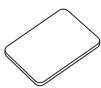


Quick Start Guide



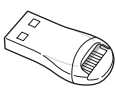
Power Cord

Cable Clips (5 EA)



Double-sided Tape for the Mounting Bracket

microSD Card
(Including BlackVue Software)

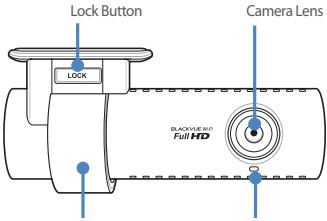


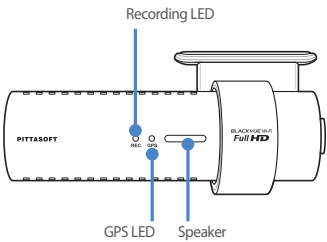
microSD Card Reader

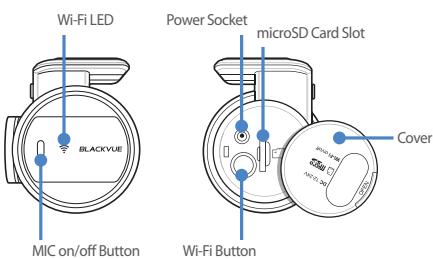
Note

- Pictures of the components may differ from the actual ones.
- To enhance the performance of the product, components may be changed without prior notice.
- The package components can be purchased additionally from the BlackVue homepage (www.blackvue.com).

Names of Each Part



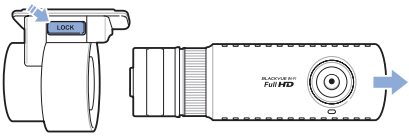




Note

- Tap the MIC on/off button to turn the voice recording function on or off.
- Press the **Wi-Fi** button on the side for 10 seconds to format the microSD card without using a PC.

How to Attach & Detach the Mounting Bracket

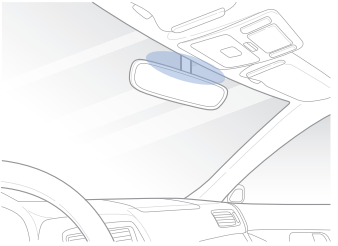


1. Pull the unit out of the mounting bracket with the **LOCK** button pressed.
2. Insert the unit into the mounting bracket until you hear clicking sound, to attach it.

How to Install the BlackVue

Checking Installation Position

1 It is recommended to install it at the back of rear view mirror. Clean any foreign matter and moisture from the place where the product will be installed.



Note

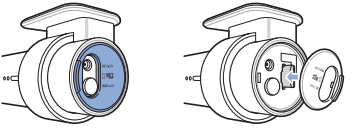
- Do not install the product where it can interfere with the driver's vision.

How to Insert & Remove the microSD Card

1 Open the cover on the side of the product.

2 Insert the microSD card into the microSD card slot, as shown in the picture.

3 To remove the microSD card, press the microSD card once and then pull it out. Make sure that the microSD card doesn't pop out while trying to remove it.



Caution

- Do not remove the microSD card while it is saving or reading data. The data may be damaged or malfunction caused.
- Copy important data to other storage media to store. Pittasoft Co., Ltd. will not be held responsible for data loss due to user negligence.

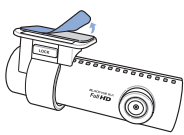
Note

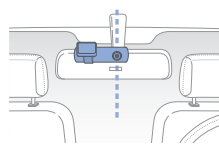
- Insert or remove the microSD card only when the product is turned off.
- microSD cards are consumables. Replace them after prolonged use.

Installation

1 Stop the engine where there is some light and in a safe place, and then remove the key.

2 Attach the front camera to the windshield glass with the camera lens located in the middle of the vehicle using the double-sided tape. After installing the product, remove the lens cap.



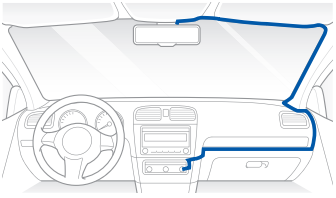


3 Use the power cord to connect the DC IN of the product to car's power socket.

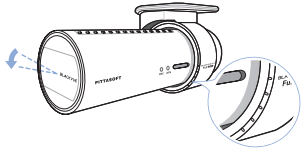
Note

- It is necessary to use the Battery Discharge Prevention Device(ex. Power Magic Pro) to record video while the car is parked.
- To use BlackVue with other equipment that uses a power cable, purchase and use a dual power outlet adaptor.

4 Use the cable clip to organize the cable so that it doesn't interfere with the driver's vision.



5 Adjust the lens angle of the camera.



Note

- After adjusting the angle of the camera lens, remember the angle of the mounting bracket so that it can be installed at the same angle next time.
- With smartphone and Wi-Fi connections, it is possible to adjust the angle of the camera lens while watching real-time video. (20 Page)

6 Start the engine and check if the product works properly.

Caution

- Set the time (time zone) when you use BlackVue for the first time. (32 Page)

Note

- After a test drive, check if video was correctly recorded.
- Recorded video is saved in the MP4 format.

Video Recording

Normal Recording

1 When the engine is started, the BlackVue is turned on automatically.

2 When the BlackVue is turned on, normal recording is automatically started.

Note

- The normal recording function can be disabled in the BlackVue software setting. (32 Page)

Parking Mode Recording

1 If the car doesn't move for 10 min or longer when in normal mode, it is automatically converted to parking mode recording.

2 In parking mode recording, if movement or impact is detected by the camera, video is recorded.

Note

- To use parking mode recording while the engine is stopped, connect the Battery Discharge Prevention Device(ex. Power Magic Pro).
- Automatic conversion function of parking mode recording can be disabled in the BlackVue software setting. (32 Page)
- When the car is converted to parking mode recording, the GPS is automatically turned off.
- In parking mode recording, the recording frame is reduced to 15 fps.

Event Recording

1 If an impact is detected in normal or parking mode recording, event recording is started.

2 It records video for 5 seconds before and 55 seconds after the impact.

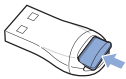
Note

- Sensitivity to impact can be adjusted in the BlackVue software setting. (34 Page)
- Event recording time can be adjusted in the BlackVue software setting. (32 Page) If you set the event recording time for 2 minute, it records video for 5 seconds before and 115 seconds after the impact.

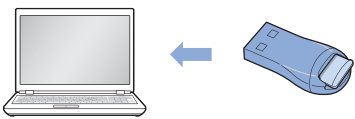
How to Playback using a PC

Recorded videos can be played back with a PC. It is enabled to play back recorded videos in the same way on multimedia devices (navigation, tablet etc.) using a USB storage device.

1 Insert the provided microSD card into a microSD card reader.



2 Connect the microSD card reader to the PC.



3 Open an application to play back recorded videos and select the movie you want to play back from the removable drive.

Note

- For how to play back using the BlackVue software, refer to **Video Playback**. (25 Page)
- If there are many recorded videos in the microSD card, it may take a long time to load the file.
- How to play back recorded videos may differ between multimedia devices, and it may not be possible to play back according to the model.

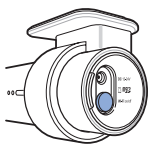
How to Playback using a Smartphone (BlackVue App)

1 Install the BlackVue application and open it in the smartphone. The BlackVue application can be downloaded from the Google Play store, Apple App Store, and Windows store.

Note

- The BlackVue app is enabled in Android 2.3 or higher, iOS 6.0 or higher, or Windows 8.0 or higher.
- Depending on your smartphone, some of the BlackVue application functions might not be supported.
- The BlackVue application is optimized for iOS 7.0.

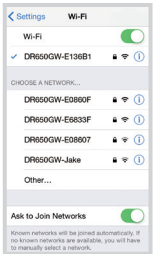
2 Press the **Wi-Fi** button on the side of the product, to turn on Wi-Fi.



3-1 (In case of using Android OS)
Tap the **Search Wi-Fi** button in the BlackVue application. Select the device you want to connect and, enter the password. (e.g. DR600GW-A682DE) Tap the **OK** button to connect it to the selected device. The initial password is **blackvue**, but the user can change it.

3-2 (In case of using iOS OS)

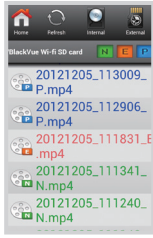
Select **Settings** > **Wi-Fi** on smartphone. Select the device to connect in the selection list of network, and enter the password. (e.g. DR550GW-A682DE) If you touch the **Join** button, it is connected to the selected device. The initial password is **blackvue**, but the user can change it. If the connection is done, press the **BlackVue** icon to run the App.



Note

- If you save the connection information when connecting using Wi-Fi, you can tap the **BlackVue Wi-Fi** button in the BlackVue application to connect it without turning on the Wi-Fi function of the smartphone. (Only for Android smartphone)
- For the Live View function, Wi-Fi can be used within a 10m range, although the range may vary in some circumstances.
- For playback of recorded videos using Wi-Fi, reception may vary according to the data transfer rate.
- For details about how to configure Wi-Fi, refer to **Wi-Fi & Other Settings**. (37 Page)
- If you do not use the Wi-Fi function for 10 minutes, it turns off automatically. And, you cannot change the time.

4 Select the recorded video you want to play back.



Note

- Tap the **Live View** button to check the video in real time.
- If the Live View or VOD playback & copy function is used while it is connected via Wi-Fi and recording Full HD (1920x1080) @30fps, the recording frame is reduced to 20 fps.
- For the details about the BlackVue App, please refer to the BlackVue App manual. You can download the BlackVue App manual from the BlackVue website (www.blackvue.com).

How to use the BlackVue Software

Screen Description

Double-click the BlackVue Viewer icon in the microSD card to run BlackVue Viewer. In order to install BlackVue Viewer on the PC, connect to the BlackVue website (www.blackvue.com) and download it.

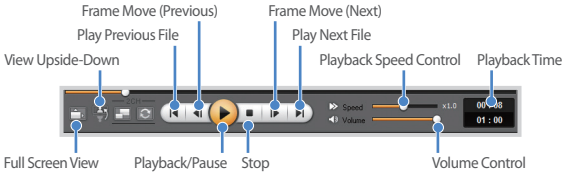
No.	Name	Description
1	Playback Screen for Recorded Videos	Videos can be played back using this screen. The mouse can be used to zoom in/out.
2	Language Setting	If you change the language on playback screen, the language for BlackVue Viewer can be changed. For details about language configuration for BlackVue, refer to the **Basic Settings**. (32 Page)
3	microSD Card Formatting	The microSD card connected to the PC can be formatted.

No.	Name	Description
❹	G-Sensor Information	G-sensor information can be checked, at the time the video was recorded.
❺	GPS Information	GPS information can be checked, at the time the video was recorded.
❻	Recorded Video List	Using the file list and map tab, the recorded video list, and where a video was recorded can be checked. : This is an normal recording file and marked with green in the timeline. : This is an event recording file and marked with orange in the timeline. : This is a parking mode recording file and marked with blue in the timeline.
❼	Timeline	Video can be explored with the date, hr, min, and sec of when a video was recorded. For details on the timeline, refer to the **Timeline**. (26 Page)
❽	Playback Option Button	You can adjust the screen, playback speed or volume while a recorded video is played back. For the details on the playback option buttons, refer to **How to Control the Playback of Recorded Video**. (25 Page)

Video Playback

How to Control the Playback of Recorded Video

The recorded video can be played back in full screen mode and be reversed upside down. The playback speed can be adjusted.



Note

- While a recorded video is played back, double-click the screen to switch to full screen view. Double-click the screen again or press ESC to return to default view.
- While playing back a recorded video, use the mouse wheel to zoom in/out.
- While playing back a recorded video, right-click the screen to view 100 % zoom-in screen.

Magnifying Glass

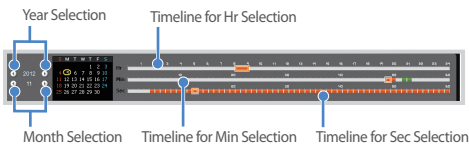
Some parts of a recorded video can be zoomed in while playing back.
Left-click the screen while a recorded video is being played back to see a partial zoom-in window and to use it to identify the number plate of a car while moving it.

Note

- You can use the Magnifier function only in BlackVue Viewer for Windows.

Timeline

Video can be explored with the date, hr, min, and sec of when a video was recorded.



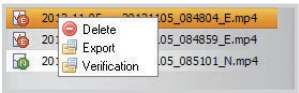
Note

- In the date selection area, the date with a recorded video is marked by a red circle and the currently-selected date is marked by a yellow circle.

How to Manage Files

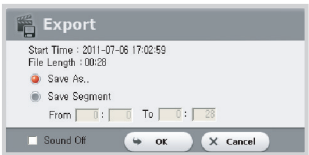
With the recorded video list, a file can be deleted or saved with a different name.

1 Select a file from the recorded video list and right-click it.



2 To delete a file, click **Delete**.

3 To save it with different name, click **Export** and select the option you want.



Note

- When you select **Sound Off**, the voice is removed from the recorded video to be saved.

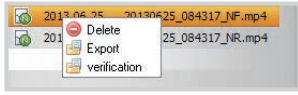
4 Press the **OK** button and select the file name you want, together with the path.

5 Press the **Save** button to finish.

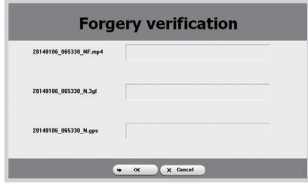
How to Verify Files

With the recorded video list, a file can be verified forgery.

1 Select a file from the recorded video list and right-click it.



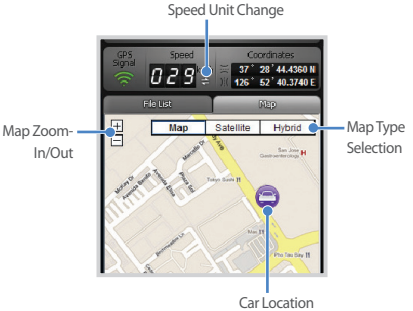
2 Click **Verification** and click **OK** button.



How to Check the Map

Where a video was recorded can be checked with the map.

1. Select a file from the recorded video list and play it back.
2. Press the **Map** tab.
3. With the **+/-** button or mouse wheel, the map can be zoomed in/out.



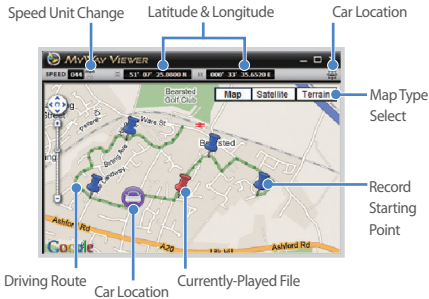
Note

- To use the map service, an Internet connection is required.
- Only for the recorded file with GPS information, the data can be checked.

How to Check MyWay Viewer

The driving route of a recorded video can be checked. (GPS Tracking)

1. Select a file from the recorded video list and play it back.
2. Press the button. The driving route will be displayed on the map.
3. Double-click the map to play back the recorded video of the nearest driving route from the clicked point.



Note

- To use the map service, an Internet connection is required.
- Only for the recorded file with GPS information, the data can be checked.

How to Save as an Image

While playing back a recorded video, some parts can be saved as images if you want.

1. Select a file from the recorded video list and play it back.
2. From the image to be saved, press the button.

Note

- Using the timeline or press the / button to explore detailed images.

3. Press the button.
4. Select the file name you want, together with the path, and click the **Save** button.

Note

- JPG and BMP formats are supported for image files.

How to Print Out an Image

While playing back a recorded video, some parts can be printed out as images if you want.

1. Select a file from the recorded video list and play it back.
2. From the image to be saved, press the button.

Note

- Using the timeline or press the / button to explore detailed images.

3. Press the button.
4. Select the printer and click the **OK** button.

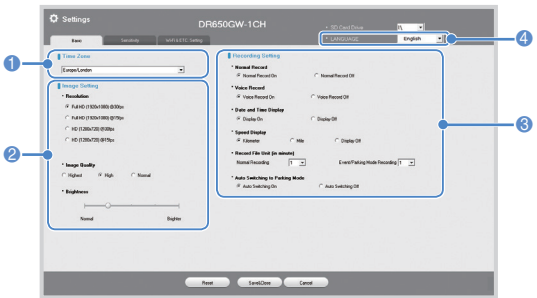
Settings

Basic Settings

Time, video, and recording Settings can be changed.

1 Click the button and click the **Basic** tab.

2 After changing the configuration, click **Save & Close**.



No.	Function	Description
1	Time Zone Settings	The time zone can be configured for where it is used. The configured time zone is used as information for recorded video.
2	Image Setting	Resolution, quality, and the brightness of the recorded video can be configured. According to the resolution, recording time varies: for the details, refer to the **Recording Time**. (44 Page)
3	Recording Setting	**Normal Record, Voice Record, Date and Time Display** and **Auto Switching to Parking Mode** function can be turned on/off. **Speed Display** and **Record File Unit** can be changed.
4	Language Setting	The language of BlackVue can be changed.

Note

- With the normal recording function disabled, only event and parking mode recording videos are saved.
- With the speed display unit disabled, the vehicle speed is not displayed when the recorded videos are played back.
- On microSD cards, older files are deleted first to mark space for newly-recorded videos. Copy and store important files such as even recording files to other storage media.
- Tap the MIC on/off button to turn the voice recording function on or off.

Time Setting

If the model is not equipped with GPS, set the time manually for use. If you do not set the time, the time of the recorded video may not be saved correctly.

1. Format the microSD card and perform the firmware upgrade.
2. Access the BlackVue website (www.blackvue.com) and download the time setting program.
3. Run the time setting program before setting the time.

Note

- The time should be set to the time BlackVue turns on. Booting time for BlackVue is about 15 seconds after power is connected.

Sensitivity Setting

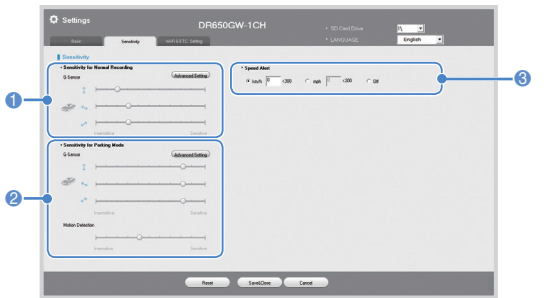
In recording mode, the G-sensor sensitivity(impact sensitivity) and motion detection sensitivity can be set for each start event recording. The speed alert can be set to start event recording when vehicle exceeds the set speed level.

1 Click the button and click the **Sensitivity** tab.

2 After changing the configuration, click **Save & Close**.

Note

- For details about advanced sensitivity configuration, refer to **Advanced Sensitivity Settings**. (36 Page)



No.	Function	Description
1	Sensitivity for Normal Recording	It is possible to set the G-sensor sensitivity for event recording when shock is applied. The G-sensor sensitivity of top and bottom, left and right, front and rear each can be set from 0-10 levels.
2	Sensitivity for Parking Mode	It is possible to set the G-sensor and motion detection sensitivity to start event recording during parking recording mode. The G-sensor sensitivity of top and bottom, left and right, front and rear each can be set from 0-10 levels; and the motion detection sensitivity can be set from 0-5 levels.

No.	Function	Description
❸	Speed Alert	When the vehicle speed exceeds the set level, a beep of event recording is created and switches to event recording mode. You can enter the number of speed limit that triggers the speed warning.

Note

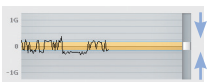
- In normal recording mode, 0 level indicates the minimum of impact ensitivity.
- In parking recording mode, 0 level of motion detection sensitivity indicates that motion recognition is off.

Advanced Sensitivity Settings

The sensitivity can be configured while watching a recorded video.

1. Click the button and click the **Sensitivity** tab.
2. Click the **Advanced Setting** button of the setting you want.
3. Play back a recorded video. Saved G-sensor information is displayed at the bottom of the recorded video which is played back.

4. Move the control bar up/down to adjust the sensitivity range. If the range is wide, it is less sensitive, and if the range is narrow, it is more sensitive.

It is recorded as an event.	It is not recorded as an event.
	

Note

- If an event recording is started due to the sensitivity configured while a recorded video is being played back, the edge of the playback screen blinks in orange.

5. After changing the configuration, click **Save & Close**.

Wi-Fi & Other Settings

Settings for Wi-Fi, LED indication, and voice announcements can be changed and user information can be registered.

No.	Function	Description
1	Wi-Fi Setting	You can change Autorun Wi-Fi feature, SSID and your password for the Wi-Fi connection. The BlackVue App can be accessed with the SSID and password chosen by the user and you can also reset the password if you have forgotten it.
2	Etc.	For video recording status, normal recording mode, and parking mode recording, the LED indicators can be turned on/off. Voice direction item or the volume can be changed.
3	User info. Registration	When user information is registered in user information registration window, the text string is displayed in the recorded image. User may register a string of 20 characters or less, in combination of English uppercase characters (A-Z), numbers (0-9), symbol (.;:'/ \ - _ () $ #).

How to Apply Configuration

The user's configuration can be applied to the product.

1. Insert the microSD card into the product. For details on how to insert the microSD card, refer to **How to Insert & Remove the microSD Card**. (14 Page)
2. When the power is turned on, the user's configuration is automatically applied.

Note

- Insert the microSD card only when the product is turned off.

Firmware Upgrade

Connect the microSD card via PC, or BlackVue application via Wi-Fi to upgrade firmware.

Upgrade via PC Connection

1. Connect the microSD card to the PC. For details on how to connect, refer to **How to Playback using a PC**. (19 Page)
2. Format the microSD card, and connect to BlackVue website (www.blackvue.com). Then, download the firmware upgrade file, in the form of a zip file.
3. Unzip the file, and copy the BlackVue folder to the microSD card.
4. Insert the microSD card in BlackVue, and turn on the power. Then, upgrade will automatically occur.

Note

- After firmware upgrade, the user's configuration is initiated.
- For detailes on how to insert the microSD card, refer to **How to Insert & Remove the microSD Card**. (14 Page)
- Insert the microSD card only when the product is turned off.

Upgrade via BlackVue Application

1. Select **Firmware Download** in BlackVue application.
2. Select **Model Name** and **Language Name** and press **OK**.
3. When firmware information to download is displayed, press **OK** to download.
4. Connect BlackVue via Wi-Fi. For details on how to connect, refer to **How to Playback using a Smartphone**. (20 Page)
5. Select **Config** > **Firmware Upgrade** in BlackVue application.
6. Press **OK** to transfer firmware to BalckVue.
7. After transfer is complete, BlackVue will reboot and firmware upgrade will automatically occur.

Note

- Firmware may only be downloaded when the smartphone is connected to the internet.
- **Firmware Upgrade** in **Config** is displayed only when a firmware file is available in the smartphone.
- BlackVue will automatically reboot after firmware upgrade is complete.

Caution

- Make sure that the power is never turned off while firmware upgrade is in progress.

Product Specifications & Standards

Product Specifications

Model Name	DR650GW-1CH
Color/Size/Weight	Black / Width 118.5mm x Height 36mm / 114g
Memory	microSD Card (16GB / 32GB / 64GB)
Recording Mode	Normal Recording, Event Recording (Impact Detection), and Parking Mode Recording (Motion+Impact Detection) ※ For parking mode recording, a battery discharge prevention device is required.
Camera	CMOS Sensor (Approx. 2.4M Pixel)
Viewing Angle	Opposite Angle 129°, Horizontal 103°, Vertical 77°
Resolution/Frame	Full HD(1920x1080)@30fps, Full HD(1920x1080)@15fps, HD(1280x720)@30fps, HD(1280x720)@15fps ※ Resolution/frame can be changed
Image Quality	Highest, High, Normal
Video Compression Mode	MP4
Wi-Fi	Built-in (802.11b/g/n(2.4~2.4835GHz)
GPS	Built-in
Microphone	Built-in
Speaker	Built-in ※ Voice Directions
LED Indicators	Recording LED, GPS LED, Wi-Fi LED, Security LED
Sensor	3-Axis Acceleration Sensor

Button	Wi-Fi on/off Button ※ Self-format Function: Press it for 10 seconds to format the microSD card
	MIC on/off Button ※ The proximity sensor is built-in so that voice recording can be turned on/off by approaching it with a hand ※ Touch the button or it recognizes when a hand approaches to within about 2 cm
Backup Battery	Built-in Super Capacitor
Input Power	DC 12V-24V
Current Consumption	Max. 3.3 W ※ Varies depending on Wi-Fi usage
Operation Temperature	-20°C ~ 60°C
Storage Temperature	-20°C ~ 70°C
Certificates	KC, FCC, CE, RoHS, Telec, WEEE
Software	BlackVue Viewer ※ Windows XP or higher (Windows 8 supported) and Mac Leopard OS X(10.5) or higher
Application	BlackVue Application (Android 2.3 or higher, iOS 6.0 or higher, and Windows 8.0 or higher)

LED Indicators

State \ LED		Recording (REC)	GPS	Wi-Fi	Security
Boot-up		Blinking			
Record-ing	Normal	Orange Blinking			White Blinking
	Event	Red Blinking			Fast White Blinking
	Parking	Green Blinking			White Blinking
Wi-Fi ON				Light	White Blinking
Wi-Fi ON/OFF Change				Blinking	White Blinking
GPS ON			Blue Light		White Blinking
Software Control		Available	Available	Unavailable	Available

Recording Time

Memory Capacity	Image Quality	Full HD (1920x1080) 30fps	Full HD (1920x1080) 15fps	HD (1280x720) 30fps	HD (1280x720) 15fps
16GB	Highest	4 HR	5 HR 10 MIN	5 HR 10 MIN	6 HR 10 MIN
	High	4 HR 30 MIN	6 HR 10 MIN	6 HR 10 MIN	7 HR 40 MIN
	Normal	5 HR 10 MIN	7 HR 40 MIN	7 HR 40 MIN	10 HR
32GB	Highest	8 HR	10 HR 20 MIN	10 HR 20 MIN	12 HR 20 MIN
	High	9 HR	12 HR 20 MIN	12 HR 20 MIN	15 HR 20 MIN
	Normal	10 HR 20 MIN	15 HR 20 MIN	15 HR 20 MIN	20 HR
64GB	Highest	16 HR	20 HR 40 MIN	20 HR 40 MIN	20 HR 40 MIN
	High	18 HR	24 HR 40 MIN	24 HR 40 MIN	30 HR 40 MIN
	Normal	20 HR 40 MIN	30 HR 40 MIN	30 HR 40 MIN	40 HR
Bit rate	Highest	8 Mbps	6 Mbps	6 Mbps	5 Mbps
	High	7 Mbps	5 Mbps	5 Mbps	4 Mbps
	Normal	6 Mbps	4 Mbps	4 Mbps	3 Mbps

Note

- There may be some variation with actual recording time.
- Depending on the image quality, the microSD card lifespan can be shorten.

Before Requesting A/S Service

It is required for users to back up important data regularly from the storage device (to other separate media). Depending on the situation, it will be necessary to delete the data from the internal storage device (component). It might be necessary to delete all the data from the product for A/S Service. So it is required for users to back up important data by themselves before requesting A/S Service. For all A/S services, it is assumed that the user has already backed up their data, so there is no additional back-up process. Therefore, it is important to note that we will not be held responsible for any data lost during A/S service.

FCC Compliance Information

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
Operation is subject to the following two conditions;
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

CAUTION : Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operated the equipment under FCC rules.

FCC ID: YCK-DR550GW-2CH

PITTASOFT

To check the BlackVue viewer,
Please turn on the device first!

MSIP-CMM-PTA-DR550GW-2CH
YCK-DR550GW-2CH

Name | Car Dashcam

Manufacturer | Pittasoft Co.,Ltd. / South Korea

Address | (Gasan-dong, BYC HIGHCITY), A-7th floor, 131, Gasan digital 1-ro, Geumcheon-gu, Seoul, 153-718, Republic of Korea.

E-mail | sales@pittasoft.com

Service Center | +82.2.6947.4670(ext.3)

www.blackvue.com **Made in Korea**

If an accident occurs, the customer is liable for any damage caused.
Therefore, please always drive safely.